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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,415	11/19/2003	Gunnar Behrens	HK-815	7259
24131 7590 06/19/2007 LERNER GREENBERG STEMER LLP P O BOX 2480 HOLLYWOOD, FL 33022-2480			EXAMINER MORRISON, THOMAS A	
			ART UNIT 3653	PAPER NUMBER
			MAIL DATE 06/19/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/717,415	Applicant(s) BEHRENS ET AL.	
	Examiner Thomas A. Morrison	Art Unit 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/19/2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/18/2007 has been entered.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, (1) the vacuum pump recited in claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. If future changes are made to the drawings, the changes to the specification need to match the changes to such drawings (e.g., reference numeral 64 for the vacuum pump in the specification).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-12, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,038,976 (Helmstadter et al.).

Regarding claim 1, Figs. 1-3 and 6 disclose a method for controlling vacuum distribution in an exposier (Fig. 1) for recording printing originals, which comprises the steps of:

holding firmly a recording material of a printing original on a supporting surface by vacuum (see Abstract), the recording material being attracted by suction by a vacuum pump (33) through suction grooves (44) machined into the supporting surface and through suction ducts (including 71) connected to the suction grooves (44); and

opening and closing the suction ducts (including 71) by manipulating valves (Fig. 6), the valves (Fig. 6) being closed by a mechanical force (e.g., compressed air from portion 57) from a mechanical actuator (including 52), and the valves (Fig. 6) being opened by an action of compressed air (column 9, lines 42-55) on a piston (column 11, line 33) in each of the valves (Fig. 6).

Regarding claim 2, Fig. 2 and column 9, lines 49-53 disclose opening all of the valves simultaneously. More specifically, all of the elements 23a-23d are activated.

Regarding claim 3, Fig. 2 discloses integrating an outlet opening (including 57) for the compressed air into the actuator (including 52).

Regarding claim 4, Figs. 2 and 6 disclose disposing the suction ducts (including 71) and the valves (Fig. 6) in an exposure drum (16); and disposing the actuator (including 52) outside the exposure drum.

Regarding claim 5, the Abstract discloses that the exposers (Fig. 1) records on printing plates.

Regarding claim 6, Figs. 1-3 and 6 show an apparatus for controlling vacuum distribution in an exposers (Fig. 1) for recording printing originals, comprising:

a supporting surface (Fig. 2) for receiving a recording material (18) of a printing original, the supporting surface (Fig. 2) having suction grooves (44) machined therein and through the suction grooves (44) the recording material is attracted to the supporting surface (Fig. 2) by suction;

suction ducts (including 71) connected to the suction grooves (44);

valves (Fig. 6) disposed in a valve block (cross-hatched wall in Fig. 2), the valves (Fig. 6) for opening and closing the suction ducts (including 71), each of the valves (Fig. 6) having a respective piston rod (near 89) and a respective piston (column 11, line 33), the valves (Fig. 6) being opened by compressed air (column 9, lines 42-55) acting on the pistons; and

a mechanical actuator (including 52) configured to selectively push the piston rods into the valve block with a mechanical force for closing selected ones of the valves (Fig. 6).

Regarding claim 7, Fig. 6 shows that that valves (Fig. 6) each contain: a bush (including 87) having a wall with drilled holes formed therein, the piston rod being displaced in the bush (including 87).

Regarding claim 8, Figs. 6 shows that the piston rod (near 89) closes and opens the drilled holes.

Regarding claim 9, Figs. 1-3 and 6 show that the mechanical actuator (including 52) closes a respective one of the valves (Fig. 6) with a force (e.g., air supplied to line 41) acting on the piston rod.

Regarding claim 10, Fig. 2 shows that the mechanical actuator (including 52) has an outlet opening (57) formed therein for channeling the compressed air.

Regarding claim 11, as best understood, Fig. 6 shows that the valve block has a negative-pressure duct (near 40) and a compressed-air duct (near 41 or near 42) formed therein, the valves connected to the negative-pressure duct and the compressed-air duct.

Alternatively, with regard to claim 11, Fig. 2 and column 11, lines 60-61 disclose that the valve block (53) has a negative-pressure duct (41) and a compressed-air duct (42) formed therein, the valves connected to the negative-pressure duct and the compressed-air duct.

Regarding claim 12, the Abstract discloses the exposer (Fig. 1) records on printing plates.

### ***Response to Arguments***

4. Applicant's arguments filed 05/18/2007 have been fully considered but they are not persuasive. Applicant argues that

The Examiner alleges that "new Fig. 2 shows details of how a vacuum pump 64 is arranged and connected to an exposure drum 1, which is not supported by the disclosure of the instant application." It is respectfully noted that the Examiner is in error. More specifically, the on page 16, lines 19-24 of the specification it is disclosed that the vacuum chamber 44 is in the center of the drum 1 and that the vacuum chamber is connected to a vacuum pump (which is now designated with the reference symbol "64"). Therefore, the disclosure fully supports the Fig. 2 that was submitted in the previous response dated November 17, 2006. Accordingly, it is respectfully noted that the Examiner's allegations with respect to new matter in the drawings, is in error.

The examiner disagrees. Applicant's modified Fig. 2 dated 11/20/2006 includes new matter. For example, such modified Fig. 2 shows a vacuum pump (64) connected

directly to a center of an end cap of an exposure drum 1 via a curved hose. First, it is noted that the positioning of the vacuum pump (64) **below** the exposure drum (1) is not supported by the disclosure of the instant application. Moreover, the **curved hose** is not supported by the disclosure of the instant application. In addition, the specification of the instant application, at page 16, lines 19-24, states, "The valve block 40 is connected via a hose 43 to a vacuum chamber 44 in the center of the exposure drum 1, and the vacuum chamber 44 is connected to **the non-illustrated vacuum pump**, which is located outside the exposure drum 1 and, for example, **is connected to the vacuum chamber 44 via a rotary lead-through**." (emphasis added). In other words, the connection between the vacuum chamber 44 and the non-illustrated vacuum pump includes some sort of **rotary lead-through**, which is not shown in Applicant's modified Fig. 2 of 11/20/2006. Accordingly, Applicant's modified Fig. 2 of 11/20/2006, which shows direct connection between the vacuum pump (64) and the center of the end cap of the exposure drum (1) via a curved hose, contains new matter not supported by the disclosure of the instant application. Thus, Applicant's modified Fig. 2 dated 11/20/2006 has not been entered.

Next, Applicant argues

The Helmstadter reference does not disclose a force applied to a valve for closing the valve where the force is a mechanical force from a mechanical actuator. More specifically, the recess (57) and the first and second control elements (52 and 53) are not a mechanical actuator at all. Because of the recess (57), the openings (60) on the second control element (53) are arranged in an arcuate and coaxial manner with respect to the axis (59) (column 9, lines 31-36). By adjusting the control elements (52 and 53) relative to one another, an adjustment of the recess (57) to the openings (60) can be performed. Therefore, compressed air is led to the valve and the valves (32) are switched pneumatically (column 9, lines



31-36).

The Helmstadter reference discloses that the control elements (52 and 53), the recess (57) along with the openings (60) are parts of a pneumatic actuator and are not a mechanical actuator as required by the claims of the instant application. Helmstadter also explicitly discloses that the valves are switched pneumatically (column 9, lines 31-32).

As seen from the above-given remarks, the reference does not show opening and closing the suction ducts by manipulating valves, the valves being closed by a mechanical force from a mechanical actuator, and the valves being opened by an action of compressed air on a piston in each of the valves, as recited in claim 1 of the instant application.

The examiner disagrees. The Helmstadter reference discloses valves (Fig. 6) being closed by a mechanical force (e.g., compressed air from portion 57) from a mechanical actuator (including 52), and the valves (Fig. 6) being opened by an action of compressed air (column 9, lines 42-55) on a piston (column 11, line 33) in each of the valves (Fig. 6). More specifically, element 52 is moved by a piston arrangement, as best shown in Fig. 2. Thus, such arrangement is a mechanical actuator. Also, element 52 has a port (57) that provides compressed air (i.e., provides a force) to control lines (e.g., control lines 41) to close the valves. More specifically, the valves are closed by air pressure (i.e., a force per unit area) from a mechanical actuator. Also, the dictionary defines the term "mechanical" as "Relating to, produced by, or dominated by physical forces." See WEBSTER'S II New Riverside University Dictionary at page 737. It is the examiner's position that the air pressure can be considered a physical force per unit area. Accordingly, the air pressure from port (57) of element 52 can be considered to be a mechanical force, as claimed. Thus, all of the limitations of claim 1 are met. Absent some physical contact or engagement between mechanical actuator 56 and

Art Unit: 3653

piston rod 53 of the instant application, the examiner cannot see how the invention differs from the Helmstadter reference.

Next, applicant argues that

Claim 6 call for, *inter alia*:

the valves being opened by compressed air acting on the pistons, and a mechanical actuator configured to selectively push the piston rods into the valve block with a mechanical force for closing selected ones of the valves.

As seen from the above-given remarks, the reference does not show the valves being opened by compressed air acting on the pistons, and a mechanical actuator configured to selectively push the piston rods into the valve block with a mechanical force for closing selected ones of the valves, as recited in claim 6 of the instant application. The Helmstadter reference discloses that valves are pneumatically controlled. Helmstadter does not disclose closing a valve with a mechanical actuator. This is contrary to the invention of the instant application as claimed, in which the valves are opened by compressed air acting on the pistons, and a mechanical actuator is configured to selectively push the piston rods into the valve block with a mechanical force for closing selected ones of the valves.

The examiner disagrees. The Helmstadter reference discloses valves (Fig. 6) being opened by compressed air (column 9, lines 42-55) acting on the pistons; and a mechanical actuator (including 52) configured to selectively push the piston rods into the valve block with a mechanical force for closing selected ones of the valves (Fig. 6). More specifically, element 52 is moved by a piston arrangement, as best shown in Fig. 2. Thus, such arrangement is a mechanical actuator. Also, element 52 includes a port (57) that provides compressed air through control lines (e.g., control line 41) to thereby push piston rods into the valve block for closing selected ones of the valves. See e.g., Figs. 6 and 2 for the piston rods and the valve block, respectively. See also column 9,

Art Unit: 3653

lines 4-20 for an explanation of selective closing of the valves. In other words, the mechanical actuator selectively pushes the piston rods via the air pressure (i.e., force per unit area) supplied by the mechanical actuator. As mentioned in the above argument, the dictionary defines the term "mechanical" as "Relating to, produced by, or dominated by physical forces." See WEBSTER'S II New Riverside University Dictionary at page 737. It is the examiner's position that the air pressure can be considered a physical force per unit area. Accordingly, the air pressure from port (57) of element 52 can be considered to be a mechanical force, as claimed. Thus, Helmstadter discloses valves being opened by compressed air acting on the pistons; and a mechanical actuator configured to selectively push the piston rods into the valve block with a mechanical force for closing selected ones of the valves, as claimed. Thus, all of the limitations of claim 6 are met.


### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

06/08/2007



PATRICK MACKEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600